



Polski Rejestr Statków

TYPE APPROVAL CERTIFICATE

This is to certify that the undernoted product

MODULAR EXHAUST GAS SYSTEM

with type designation

METALOTERM[®] AD / AM

See the parameter table

manufactured by

ONTOP B.V.
Oude Veersveg 23
4332 SH Middleburg
THE NETHERLANDS

is approved as complying with the requirements of the

PRS Rules for the Classification and Construction of Sea-going Ships

Certificate No. **TM/1299/710184/14**

Expiry date **2019-11-27**

Issued at

Gdańsk, 2014-11-28




Signature

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Continued overleaf

Technical data

Modular, exhaust gas piping system of twin wall stainless steel design, mineral wool insulated and linked using dedicated sealing kits, intended for use with internal combustion marine engines or boilers. Maximal working temperature should not exceed 550 °C.

System Type	Material	Diameter Range	Thickness	Max. working pressure	Remarks
METALOTERM® AD	Inner wall ASTM 304 (EN 1.4301) Outer wall ASTM 316 (EN 1.4404)	DN130 ÷ 300 DN450 ÷ 600	0,5 mm 0,6 mm	5000 Pa	No. 1÷6
METALOTERM® AM	Inner wall ASTM 316 (EN 1.4404) Outer wall 254 SMO (EN 1.4547)	DN130 ÷ 300 DN450 ÷ 600	0,5 mm 0,6 mm	5000 Pa	No. 1÷6

Remarks:

1. Modular exhaust piping system for internal combustion engines is to be used onboard ships classed by PRS according to applicable requirements design and classification of machinery including compliance with safety and watertight integrity.
2. For each intended use of the modular exhaust gas piping system having PRS class: the application company must provide all the information required by the PRS Rules and containing the information necessary for the design approval and construction of the exhaust piping installation and associated equipment in compliance with PRS requirements with applicable PRS for Classification and Construction of Sea-going Ships.
3. Each module is to be clearly marked and should contain the following data: Manufacturer's Mark, Identity number. Nominal diameter or other technical data for identification and traceability.
4. Installation of the modular exhaust piping system is to be carried out in compliance with manufacturer design, installation and testing requirements and instructions. Any repairs and maintenance must be done by authorized personnel or authorized company according manufacturer's instructions.
5. Each modular piping system is to be subject of testing after installation onboard according to the approved test program.
6. For each application of exhaust gas piping system onboard PRS classed ships other than sea-going ships, PRS will provide requirements for technical documentation approval and applicable scope of survey during construction, testing and survey in operation.

Basis of approval

1. ONTOP / Metaloterm catalogue of products, datasheets and instructions.
2. Technical documentation of modular exhaust piping system approved by PRS.
3. Technical documentation received during the inspection on 12th of September 2014.
4. Satisfactory results of tests carried out in the presence of PRS' Surveyor on 12th of September 2014.
5. Inspection of the production plant in Middleburg, The Netherlands, carried out by PRS Surveyor on 12th September 2014.

Notes

- 1 The approval is valid only when the product is used in accordance with the manufacturer's conditions.
- 2 Changes of product design and materials which influence product quality are to be agreed with PRS.
- 3 Type Approval Certificate will be cancelled in the case of dissatisfactory service results, modifications made in the product structure or materials without PRS' consent, not advising PRS of the manufacturer's name change.

In carrying out survey activities Polski Rejestr Statków S.A. (PRS) makes efforts to ensure that they are conducted with conscientiousness and the principles of good practice, with due regard paid to the state-of-the-art technology. However, neither PRS nor its Surveyors shall bear any civil liability for damage, loss or expense which may arise in consequence or as the outcome of conducting these activities, or the result of information or advice given to the customer by PRS, irrespective of whether or not such were the result of neglect, error or lack of proper information. Nevertheless, should the customer prove that such damage, loss or expense was due to negligence on the part of the Society or its Surveyors, PRS will pay compensation to the customer for his loss up to but not exceeding the amount due for services provided, forming the basis of the customer's claim. In no cases will PRS be responsible for indirect losses (loss of prospective profits, loss of contract, inability to undertake activities, etc.) sustained by the customer and associated with the executing of a commission by PRS.